

HPC/RPC Review
Exponential & Logarithmic Functions

Name KEY

Date _____ Period _____

PC Reporting Strand: Exponential & Logarithmic Functions (Key Features and Transformations)

1. Average national teachers' salaries can be modeled using the function $y = 9.25(1.06)^n$, where y is the salary in thousands of dollars and n is the number of years since 1970.

a. What is the y -intercept? What would be the significance of the y value at the intercept?

Approx 15-20 Teacher salary in 1970.

b. What would the average teachers' salary be in the year 2000, according to this model?

50 thousand

c. Based on this model, if a teacher started working in 2000 and taught for 50 years, what would their salary be in their final year of teaching? Does this seem realistic?

~~100 thousand~~
About \$1 million

not really... haha

d. The function is graphed below. What does the minimum salary appear to be, based on this model? How did you come to that conclusion?

Does there appear to be a maximum salary?

Minimum appears to be zero (end behavior asymptote)

maximum is approaching ∞ , so no.

